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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,769	09/08/2005	Franciscus Hermanus Maria Jongsma	3560-0142PUS1	3433
2292 7590 07/31/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER DINH, JACK	
			ART UNIT 2873	PAPER NUMBER
			NOTIFICATION DATE 07/31/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

Application No.

10/524,769

Applicant(s)

JONGSMA ET AL.

Examiner

Jack Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 0205.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: DETAILED ACTION.

## DETAILED ACTION

### *Claim Objections*

1. Claim 8 is objected to because of the following informalities. Appropriate correction is required.

Regarding claim 8, line 3, "Is" should be corrected as "is".

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 10-16, 18 and 20-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, the phrases "said fraction of the light leaving the surface further comprises excitation light" and "said excitation light is removed before said analysis of said fraction of light leaving the surface" render the claim indefinite. The two phrases contradict. It is unclear whether the excitation light is removed *or* is comprised in the fraction of light when leaving the surface.

Regarding claim 10, the phrase "said excitation light is used to synchronize the at least one of said receiving units" renders the claim indefinite. It is unclear of the characteristic of the

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excitation light that is used to synchronize the receiving units. Therefore, the rejection below is based on the broadest possible interpretation.

Regarding claim 11, "illumination of the surface" lacks antecedent basis. Furthermore, the phrase "enables detection of references" renders the claim indefinite. It is unclear what "references" are being claimed. Claims 12 and 13 are rejected based upon the rejected base claim.

Regarding claim 14, the phrase "5 receiving units" lacks antecedent basis. Therefore, it is unclear the configuration being claimed. Claims 15 and 16 are rejected based upon the rejected base claim.

Regarding claim 18, the phrase "sinus shaped fringe pattern" renders the claim indefinite. It is unclear of the shape of the interference pattern being claim. Therefore, the rejection below is based on the broadest possible interpretation.

Regarding claim 20, the phrase "5 analysis means" lacks antecedent basis. Therefore, it is unclear the configuration being claimed. Claims 21-31 are rejected based upon the rejected base claim.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4-10 and 17-19 are rejected under 35 U.S.C. 102(b) as being unpatentable by Smith (US Patent 6,024,449).

Regarding claim 1, Smith (figures 1 and 9) is interpreted as disclosing a method for performing measurements of a topography of a surface, such as the topography of an eye surface 6, wherein an image is projected onto the surface from at least one projection light source using projection means 1, wherein at least a fraction of light leaving the surface as a result of the projection is received using one or more receiving units, such as charged coupled device (CCO) based cameras 7, wherein measurement of the topography relates to surface mapping of the surface, wherein the topography of the surface is determined by analysis of the fraction of light leaving the surface, and wherein the fraction of light leaving the surface is comprised of light radiated by the surface due to thermal emission, characterized in that, the analysis for determining the topography of the surface is performed on the light radiated by the surface due to thermal emission (col. 4, line 50 – col. 6, line 8; col. 9, lines 15-20).

Regarding claim 2, Smith is interpreted as further disclosing that at least one of the receiving units only receives the fraction of light leaving the surface during thermal excitation of the surface (col. 4, line 50 – col. 6, line 8; col. 9, lines 15-20).

Regarding claim 4, Smith is interpreted as further disclosing that the surface is part of the surface of a human eye (col. 2, line 67).

Regarding claims 5-7, Smith is interpreted as further disclosing that the image projected onto the surface is projected with light comprising a colour for which the surface is opaque corresponds to a colour of infrared (IR) light, wherein mid-IR light is used for projecting the image on the surface (col. 4, line 66 – col. 5, line 6).

Regarding claim 8, Smith is interpreted as further disclosing that the projection means flashes the image onto the surface, and wherein at least one of the receiving units is synchronized with the projection means (col. 5, lines 49-52).

Regarding claim 9, Smith is interpreted as further disclosing that the projection means projects the image during a series of flashes onto the surface, enabling determination of dynamics of the topography of the surface (col. 5, line 35 – col. 6, line 8).

Regarding claim 10, Smith is interpreted as further disclosing that the fraction of the light leaving the surface comprises excitation light that is radiated by the surface due to excitation of

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surface matter, and wherein the excitation light is used to synchronize the at least one of the receiving units (col. 5, line 35 – col. 6, line 8).

Regarding claim 17, Smith is interpreted as further disclosing that the image projected onto the surface is an interference pattern provided by a grid (col. 4, lines 50-60).

Regarding claim 18, Smith (figure 4) is interpreted as further disclosing that the interference pattern is a sinus shaped fringe pattern (col. 8, lines 4-55).

Regarding claim 19, Smith is interpreted as further disclosing that Fourier profilometric method is used for determining the topography of the surface (col. 1, lines 15-30).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Dinh whose telephone number is 571-272-2327. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack, can be reached at 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jack Dinh  
07/16/07

A handwritten signature in black ink, appearing to read "Ricky Mack", with a stylized circular flourish around the first part of the name.

**RICKY MACK**  
**SUPERVISORY PATENT EXAMINER**